Before the
Federal Communications Commission
Washington, DC 20554

FCC 91-337

In the Matter of	)	
Advanced Television Systems	)	
and Their Impact upon the	)	**MM Docket No. 87-268**
Existing Television Broadcast	)	
Service	)	

Date: 17 December 1991

Re: Compatibility with other Media

Comments of
Hugh Carter Donahue, Ph.D.

Advanced Television Compatibility (ATV) with other media will advance first amendment freedoms and stimulate economic competitiveness and growth by laying the electronic foundation for a robust marketplace of ideas, which will stimulate high value-added electronic equipment, telecommunications, information, and entertainment industries.

First Amendment Freedoms

Compatibility across electronic media will stimulate first amendment freedoms for ATV and among emerging, interactive, digital communications systems. Such characteristics as interoperability, scalability, extensibility, and harmonization[1] will enable ATV producers, programmers, distributors, broadcasters and consumers to interconnect with other media more

easily and to use differing generations of electronic communications technologies more fully.

By increasing the numbers of communicators and varieties of content and by facilitating access, compatibility stimulates speech, because interoperability, extensibility, and scalability produce logarithmic increases in content by enabling arithmetic increases in conduits.

By encouraging compatibility with other media, the commission would employ its discretionary authority consistently and wisely. Compatibility advances both public forum and absolutist dimensions of the first amendment. These first amendment standards have defined commission behavior toward speech. From the Great Lakes Broadcasting decision in the early days of commercial broadcasting asserting commission authority over broadcast content to advance a public forum in radio to its 1987 recision of the fairness doctrine on the grounds that the doctrine inhibited expression, the commission has asserted historically that stimulating public discourse guides its regulatory behavior and decision making.[2]

Such wise and consistent use of discretionary authority would enable the commission to work effectively with congress on first amendment dimensions of ATV. Compatibility can unite the commission and congress in principal in advancing first amendment

dimensions of ATV.[3] The commission can stimulate conduits without traversing first amendment requirements forbidding intrusion on content. Congress will have ample evidence of a robust public forum functioning compatibly without content regulation.

Incompatibility would diminish ATV broadcasters' first amendment freedoms. Should incompatible ATV transmission technology restrict interconnection with other communications technologies, ATV broadcasters would find themselves holding a defined bandwidth on the electro-magnetic spectrum transmitting bigger, better, brighter pictures with CD-quality sound. Such a course could mitigate audience attrition in the short term, and would place broadcasters at a long term competitive disadvantage to high resolution programming and services carried on switched networks.[4] Compatibility, by contrast, enables broadcasters to assert their first amendment freedoms across broadband electronic media by making use of ATV technology to capture markets and express their views.

Economic Competitiveness and Growth

ATV compatibility across media would stimulate economic competitiveness and growth by increasing the number of possible inputs from cable, fiber optic, and video discs and tapes, by providing users the manipulative powers of computers, by providing easier use of connecting devices for multiple

applications, and by flexibility and ease of attaching new technologies. These capacities stimulate the electronic equipment, telecommunications, information, and entertainment industries to produce and provide equipment, interconnections, and programming. Digital communications will also create opportunities for new industries in billing for value-added per-per-use information.

By stimulating these capacities and sectors, ATV compatibility responds to timely demands of macro and micro economic activity in the US by creating more opportunities for economic participation across many sectors employing electronic information, imaging, and programming. It is now commonplace to note that computer technologies increase the value of information relatively over the value of knowledge.[5] When information circularized less quickly, profitable economic activity required reliability and rational calculability based upon knowledge of the workings of discrete industries. As a rule, individuals acquired working knowledges of their industries through careers, and exacted value depending on the scarcity of their value-added function. However, as computer processing makes information more flexible and telecommunications circulate information more quickly, businesses increasingly require and reward technical competence handling information. With increasing electronic creation, storage, transmission and processing of information, these business dynamics will become more dominant, and

compatibility across media will be emerge as a critical component of economic activity.

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Endnotes

1. Interoperability defines ease of conversion across media and for differing applications.

Extensibility signifies the ability to adapt to innovation and to uses requiring a higher signal quality and more information transmission.

Scalability specifies the creation of pictures by use of subsets of coded bits so that different quality pictures can be produced depending on the type of processors used.

Harmonization would permit receivers to be multistandard devices, capable of processing video formats from a variety of sources. See Notice of Proposed Rule Making, pages 24-25, paragraph 47, footnotes 85-88.

2. Hugh Carter Donahue, The Battle To Control Broadcast News: Who Owns the First Amendment? (Cambridge, Massachusetts: MIT Press, 1989)

3. In the eighties, enmity arose between the commission and the House Committee on Energy and Commerce and among many senators over revocation of the fairness doctrine for broadcasting, because the commission and critical legislators held principally different views over the utility of the regulation to effect public discourse.

4. For example, equipment incompatibility between broadcast ATV and switched digital systems will discourage program exchange, and push up the cost of broadcast equipment by diminishing its network utility.

5. Mark Poster, The Mode of Information Poststructuralism and Social Context, (London, Polity Press, 1990); Jack Hirshleifer, Time, Uncertainty and Information (London, Basil Blackwell, 1989).